

ABSTRACT

A method of polymerizing poly(cyclic)olefin monomers encompassing (a) combining a monomer composition containing the poly(cyclic)olefin monomers, a non-olefinic chain transfer agent and an activator compound to form a mixture; (b) heating the mixture; and (c) adding a polymerization catalyst containing Ni and/or Pd. The non-olefinic chain transfer agent includes one or more compounds selected from H₂, alkylsilanes, alkylalkoxysilanes, alkylgermanes, alkylalkoxygermanes, alkylstannanes, and alkylalkoxystannanes. The activator is characterized as having an active hydrogen with a pKa of at least 5. The resulting poly(cyclic)olefin polymers can be used in photoresist compositions.